

U.S. Application No.: 10/720,746
Amdt. dated March 20, 2007 (*Tentative*)
Reply to Office Action dated December 20, 2006

Attorney Docket No.: 9988.084.00

Amendments to the Drawings

The attached drawing sheet includes changes to Fig 3. This sheet replaces the original sheet.

Attachment: Replacement sheet

Remarks

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated December 20, 2006 has been received and its contents carefully reviewed.

Claim 2 is amended to correct an inadvertent typographical error in its identified base claim. Claim 5 is amended to clarify the invention. Claims 6-9 are newly added. Support for the newly added claims may be found, at least, at paragraphs [0021]-[0025] of the specification. Accordingly, claims 1-9 are pending in the application.

The Office objects to FIG. 3 of the drawings for failing to designate that figure by a legend such as --Prior Art--. Office Action at ¶ 1. FIG. 3 has been amended by adding the words --Related Art-- thereto. Applicant respectfully requests withdrawal of the objection to FIG. 3.

The Office objects to the title of the invention, asserting that the title is not descriptive. Office Action at ¶ 2. Applicant respectfully traverses and asserts that the title is sufficiently descriptive. The as-filed title of the invention is "Washing Machine Control Method." Correspondingly, the preamble of claim 1, the only independent claim in the as-filed application, recites "A washing machine control method" The Applicant asserts that the as-filed title is clearly indicative of the invention to which the claims are directed. A new title is not required. The Office is respectfully requested to withdraw the objection to the title.

The Office objects to the specification for failing to provide the proper antecedent basis for the claimed subject matter." Office Action at ¶ 3. Applicant respectfully traverses. The original claims of the application form part of the specification. Accordingly, the original claims of the invention are fully supported by the as-filed specification. Concerning the Office's references to paragraph [0011] and a single sentence of paragraph [0022] of the specification, Applicant respectfully states that it appears as if the Office is attempting to read a purported limitation from either an isolated portion of the "Summary of the Invention" section or the "Detailed Description of the Preferred Embodiment" section of the specification into the as-filed claims. Applicant asserts that it is entirely improper to read a limitation from these sections into

the claims. Accordingly, Applicant respectfully requests withdrawal of the objection to paragraphs [0011] and [0022] of the specification.

The Office rejects claim 5 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. Office Action at ¶ 5. Claim 5 has been amended to improve its clarity. Applicant respectfully requests withdrawal of the 35 U.S.C. § 112, second paragraph rejection of claim 5.

Additionally, with respect to the Office's comments concerning its interpretation of the claimed invention, Applicant respectfully states that it has not limited the meaning of "predetermined temperature;" it has not limited the predetermined temperature to being "adjustable by the user;" nor has it limited "each predetermined temperature [to be] linked with a corresponding dewatering speed," as the Office has imagined for "purposes of examination." Office Action at ¶ 5. The claims of this application speak for themselves. Applicant fails to understand why the Office believes it must insert imaginative limitations on the claim scope, which limitations may or may not be covered by the claims but certainly are not recited therein. The Office is specifically encouraged to reconsider its entire examination by carefully reading the words of the claim and attributing to them their ordinary and customary meaning as would be understood by one of skill in the art at the time of the invention.

The Office rejects claim 3 under 35 U.S.C. § 112, second paragraph, for use of the word "normal." The Office asserts that the word "normal" "is a relative term which renders the claim indefinite." Office Action at ¶ 6. Applicant respectfully traverses this rejection. The isolated word "normal" is not a relative term. *See* MPEP § 2173.05(b). Even if it were, Applicant asserts, contrary to the Office's assertion, that "one of ordinary skill in the art, in view of the prior art and the status of the art, would be nevertheless reasonably apprised of the scope of the invention." MPEP 2173.05(b). Claim 3, to which the Office addresses its rejection, even identifies, for purposes of that claim, that "the *normal* dewatering speed is limited to 1,000 rpm." Applicant asserts that the use of the word "normal" in claim 3 does not render that claim indefinite under 35 U.S.C. § 112, second paragraph. Accordingly, the rejection of claim 3 should be withdrawn. Additionally, the use of the word "normal" in claim 2 also fails to render that claim indefinite. Applicant asserts that for a washing machine, "one of ordinary skill in the

art, in view of the prior art and the status of the art, would be ... reasonably apprised of the scope of the invention” given the use of the word “normal” in claim 2. MPEP § 2173.05(b).

The Office rejects claims 1-4 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,078,700 to Billings *et al.* (hereinafter “*Billings*”). Applicant respectfully traverses this rejection.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP § 2131. *Billings* fails to disclose, either expressly or inherently, at least, “sensing the temperature of the water as it drains from the tub,” as recited in independent claim 1.

Billings relates to an automatic washing machine that “thermostatically control[s] the spinning mechanism so that centrifuging will be accomplished *only* when the fabric to be centrifuged is at an acceptable temperature.” *Billings* at col. 1:25-28 (emphasis added). Billing’s “*prevents* a spinning operation ...” if the temperature is too high. *Id.* at col. 1:31. In other words, if the temperature is too high, the *dewatering operation does not occur*. *Billings* “includes a thermostatic device in series [with the] control of the spinning mechanism to delay [its operation] until the temperature ... has reached a predetermined temperature.” *Id.* at col. 1:33-37. Thus, *Billings* cannot control a dewatering speed because one cannot control the speed of a dewatering operation if the dewatering operation *has not occurred*. Accordingly, claim 1 is not anticipated by *Billings*. It stands to reason that claims 2-4, which depend directly or indirectly from independent claim 1, are also not anticipated by *Billings*. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) rejection of claims 1-4.

The Office rejects claim 5 under 35 U.S.C. §102(b) as anticipated by *Billings*. Applicant respectfully traverses this rejection.

For at least the reasons set forth above, *Billings* fails to anticipate independent claim 1. It stands to reason that claim 5, which depends indirectly from independent claim 1, is also not anticipated by *Billings*. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) rejection of claim 5.

Alternatively, the Office rejects claim 5 under 35 U.S.C. §103(a) as obvious over *Billings* in view of U.S. Patent No. 5,133,200 to Tanaka *et al.* (hereinafter "*Tanaka*").

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." MPEP § 2143. However, "[i]f a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP § 2143.01(V).

Tanaka fails to cure the deficiencies of *Billings*. The proposed modification would render *Tanaka* unsatisfactory for its intended purpose. *Tanaka* relates to a "washing machine [that includes] a temperature sensor sensing the temperature of water contained in a rotatable tub so that a washing operation can be performed in accordance with the water temperature and the atmospheric temperature. The wash step control data including a wash period and intensity of the water stream is determined based on the water temperature sensed by the temperature sensor during the wash step [not during drainage]. The dehydration step control data including a dehydrating period or the rotational speed of the tub is determined based on the water temperature sensed by the temperature sensor during the rinse step [not during drainage]." Abstract. *Tanaka*, under the proposed modification, cannot "control[] a dewatering speed according to the sensed [drained] water temperature," as recited in independent claim 1. (Applicant inserts the word "drained" to remind the Office that the antecedent basis for the "water" in the above-recited element is the "drained water" of a preceding element.) *Tanaka*'s temperature sensing *must* occur *before* draining the water from the tub. FIG. 1 (P2 occurs before P8); FIG. 2 (P13 occurs before P18); FIG. 3 (P22 occurs before P28). According to *Tanaka*, some temperature dependent parameters are measured before draining so that the *measurement of the water in the tub* accounts for both water temperature and atmospheric temperature. *Tanaka* at col. 4:55-5:4 ("atmospheric temperature or season can be estimated based on the water temperature sensed in the [tub during the] rinse step") ("water temperature [of water in the tub] sensed by the temperature sensor 10 at the initial stage of the wash step") ("dehydration period ... determined based on the water temperature [in the tub] sensed by the temperature sensor 10 in the rinse step"). Accordingly, *Tanaka*, as modified cannot "control[] a dewatering

speed according to the sensed water temperature as it drains from the tub,” as recited in independent claim 1, because the parameters for an operation must be determined *while water is in the tub*, before water drainage. *Id.* In fact, modifying *Tanaka* by sensing the temperature of the drained water, rather than the water in the tub, would render *Tanaka* unsatisfactory for its intended purpose. MPEP § 2143.01(V). By way of illustration, FIG. 1 of *Tanaka* is reproduced below.

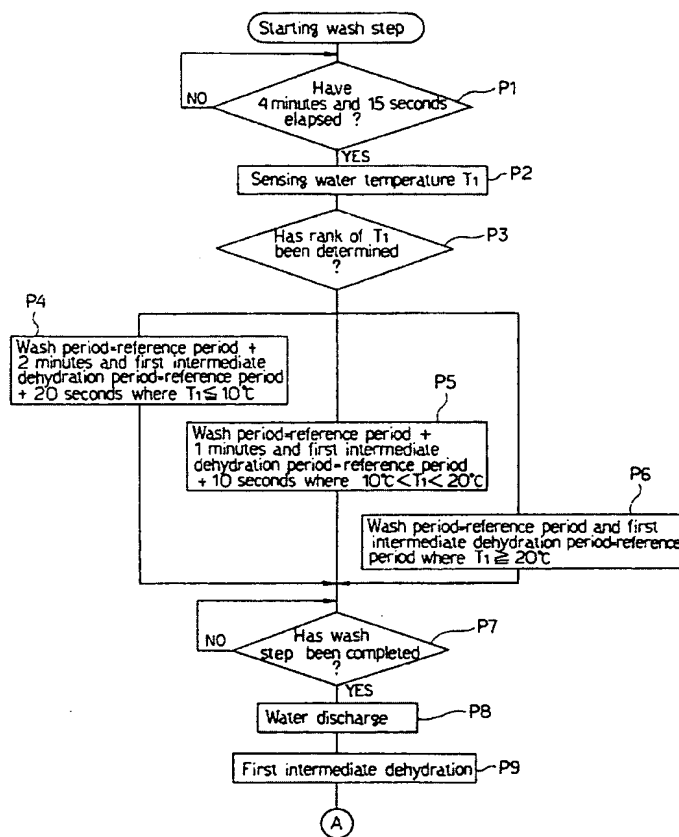


FIG.1

cannot occur in the washing machine of *Tanaka*. Accordingly, the proposed modification of the method of *Tanaka* would render it unsatisfactory for its intended purpose. As stated above: “If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” MPEP § 2143.01(V). As there is no suggestion or motivation to make the proposed modification to *Tanaka*, *Tanaka* and *Billings*, either alone or in combination, fail to render as obvious, independent claim 1 of the application.

As illustrated in FIG. 1, some of *Tanaka*’s operational parameters are based on water temperature *in the tub* during or before the operation. For example, in FIG. 1, temperature of the water is sensed at P2 and ranked at P3, both of which occur before the water discharge step of P8. *Tanaka*’s ranking determines some operational parameters of the ongoing wash step and the succeeding dehydration step. See text of P4, P5, and P6; see also text of P15, P16, P17, P24, P25, and P26 in FIGS. 2 and 3. If the sensing of the water temperature occurred after water discharge at P8, then both the wash and dehydration periods could not be determined until after the wash step was completed. This is an impossibility and

Claim 5 depends indirectly from independent claim 1. For at least the reasons set forth above, *Billings* and *Tanaka*, either alone or in combination, fail to render claim 5 obvious. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of claim 5.

For at least the reasons set forth above, newly added claims 6-9, which depend either directly or indirectly from independent claim 1, are also neither anticipated by *Billings*, nor rendered obvious by *Billings* either alone or in combination with *Tanaka*. Accordingly, claims 6-9 are patentable over the cited art.

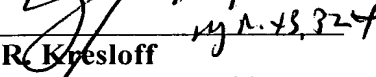
Applicant respectfully submits that claims 1-9 are allowable over the cited prior art. The application is in immediate condition for allowance. Early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: March 19, 2007

Respectfully submitted,

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ANNOTATED SHEET

FIG. 3
RELATED ART

